



WHAT IS CLAIMED IS:

1 1. A crosslinkable polymer composition in the form of its aqueous
2 polymer dispersion or polymer powder, comprised of:

3 A) a copolymer having a glass transition temperature T_g or a melting
4 temperature of $\geq 30^\circ\text{C}$ and containing units derived from one or more comonomers
5 selected from the group consisting of vinyl esters of branched or unbranched
6 alkylcarboxylic acids of 1 to 18 carbon atoms, acrylic esters or methacrylic esters of
7 branched or unbranched alcohols of 1 to 15 carbon atoms, dienes, olefins, vinyl
8 aromatics and vinyl halides and from 0.1 to 50% by weight, based on the total weight
9 of the comonomers, of one or more ethylenically unsaturated carboxyl-containing
10 comonomers, and

11 B) a copolymer containing units derived from one or more
12 comonomers selected from the group consisting of vinyl esters of branched or
13 unbranched alkylcarboxylic acids of 1 to 18 carbon atoms, acrylic esters or
14 methacrylic esters of branched or unbranched alcohols of 1 to 15 carbon atoms,
15 dienes, olefins, vinyl aromatics and vinyl halides and from 0.1 to 50% by weight,
16 based on the total weight of the comonomers, of one or more ethylenically unsaturated
17 comonomers having functional groups capable of entering a covalent bond with the
18 carboxyl groups of said copolymer A).

1 2. A crosslinkable polymer composition as claimed in claim 1,
2 wherein said carboxyl-containing comonomers copolymerized for said copolymer A)
3 are ethylenically unsaturated mono- and dicarboxylic acids or maleic anhydride.

1 3. A crosslinkable polymer composition as claimed in claim 2,
2 wherein one or more comonomers are selected from the group consisting of acrylic
3 acid, methacrylic acid, crotonic acid, itaconic acid, fumaric acid, maleic acid and
4 maleic anhydride.

1 4. A crosslinkable polymer composition as claimed in claim 1,
2 wherein said copolymer A) contains 1 to 30% by weight of carboxyl-containing
comonomer units.

1 5. A crosslinkable polymer composition as claimed in claim 1,
2 wherein said copolymer B) comonomers having crosslinking, functional groups
3 include one or more selected from the group consisting of comonomers having an
4 epoxide, organo, halogen, hydroxyl, aziridine, carbodiimide, oxazoline, alcohol,
5 amine, aminosilane, amino-formaldehyde, isocyanate and N-2-hydroxyalkylamide
6 moiety.

1 6. A crosslinkable polymer composition as claimed in claim 5,
2 wherein one or more ethylenically unsaturated comonomers having epoxide, hydroxyl
3 and isocyanate groups have been copolymerized.

1 7. A crosslinkable polymer composition as claimed in claim 6,
2 wherein one or more comonomers are selected from the group consisting of glycidyl
3 acrylate, glycidyl methacrylate, allyl glycidyl ether, vinyl glycidyl ether, hydroxyethyl
4 acrylate, hydroxypropyl acrylate, hydroxybutyl acrylate, hydroxyethyl methacrylate,
5 hydroxypropyl methacrylate, hydroxybutyl methacrylate, 2-methyl-2-
6 isocyanatopropyl methacrylate and isopropenyl dimethylbenzyl-,isocyanate (TMI).

1 8. A crosslinkable polymer composition as claimed in claim 1,
2 wherein said copolymer B) contains 1 to 30% by weight of units derived from
3 comonomers containing crosslinking groups, based on the total weight of the
4 comonomers.

1 9. A crosslinkable polymer composition as claimed in claim 1,
2 wherein the blend ratio of said two copolymers A) and B) is in the range from 1:99
3 to 99:1.

1 10. A crosslinkable polymer composition as claimed in claim 1,
2 wherein said copolymers A) and B) are present in such a ratio that the molar ratio of
3 functional comonomer units of copolymer A) to copolymer B) is in the range from 5:1
4 to 1:5.

1 17. A method for preparing shaped articles from fibrous or
2 particulate materials, which comprise contacting said materials with the crosslinkable
3 composition of claim 1 as at least one binder and effecting crosslinking of said
4 materials.

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1 18. The method of claim 17, wherein said polymer composition is
2 present in an amount of 3 to 50% by weight, based on the material to be bound.

1 19. The method of claim 17, wherein said polymer composition is
2 present in dry, pulverulent form, in the form of an aqueous dispersion or in solvent-
3 dissolved form.

1 20. The method of claim 17, wherein said polymer composition is
2 present as a water-redispersible powder.

1 21. The method of claim 17, wherein said polymer composition is
2 present as a prebinder in fiber mats, wovens and nonwoven scrims for fiber-reinforced
3 plastics.

1 22. The method of claim 17, wherein said polymer composition is
2 present as a binder for preforming applications of wovens and nonwoven scrims in
3 fiber-reinforced plastics.

1 23. The method of claim 17, wherein said polymer composition is
2 present as a dry binder in combination with other pulverulent organic or inorganic
3 substances.

1 24. The method of claim 17, wherein said polymer composition is
2 present as a binder for laminating fiber mats onto expanding or expanded bead foam.

1 25. The method of claim 17, wherein said polymer composition is
2 present for laminating two or more wovens, nonwoven scrims or nonwovens together,
3 as a binder between the two substrates to be adhered together.

1 26. The method of claim 17, wherein said polymer composition is
2 present in powder form for binding pulverulent substrates in fiber materials.

- 1 27. The method of claim 17, wherein said polymer composition is
- 2 present for in-mold skinning of expanding bead foam.

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